



LAC-IEE-04-019

**INITIAL ENVIRONMENTAL EXAMINATION
(SUPPLEMENTAL)**

COUNTRY: Central America

TITLE: PROARCA IR 4, Increased Use of Less Polluting Technologies

IEE Reference Number: LAC-IEE-01-13, LAC-IEE03-43
LAC-IEE-04-011

DURATION: FY02 – FY06

LOP FUNDING: within existing funding

IEE PREPARED BY: Doreen Salazar, ARD
Roberto Morales, PROARCA
Michael Donald, REA, USAID/G-CAP

RECOMMENDED THRESHOLD DECISION: Categorical Exclusion
Negative Determination with Conditions

BUREAU THRESHOLD DECISION: Concur with Recommendation

Comments:

This IEE covers the activities that will be undertaken to fulfill USAID/G-CAP's objectives based on the Central America – Increased use of less polluting technologies. These activities support USAID/G-CAP's environmental strategic objective "Improved Environmental Management in the Mesoamerican Biological Corridor", but have a wider regional impact.

Focused, detailed, technical assistance

Some of SIGMA consultancies and purchase orders involve provision of focused technical assistance to municipalities and/or productive enterprises to improve environmental management. This work does not include any purchase of equipment or infrastructure, but does involve development of detailed analyses and recommendations for actions to be taken to improve environmental management. For all of these activities, the technical assistance itself

does not have negative environmental impacts, and USAID does not have direct control of implementation of recommendations. However, SIGMA will require environmental analysis of recommended actions (for example we will recommend to clients that EIAs be conducted if necessary) consistent with LAC environmental guidelines as part of the scope of work of our consultancies and purchase orders.

Research activity with limited scope and effective monitoring

SIGMA has been approached by students of the Universidad de San Carlos Escuela Regional de Ingenieria Sanitaria (ERIS) to support physical construction of model wastewater infrastructure activities. These are small-scale construction projects designed for experimentation, and confined to small areas, consistent with 22 CFR 216.2 (c)(2)(ii). However, SIGMA will require development of a mitigation plan in any case in the scope of work if there are any potential negative impacts. The infrastructure would be constructed in already degraded sites; the two requests SIGMA has received so far are confined to the ERIS wastewater research site, which is a degraded site.

Small scale investment in equipment &/or infrastructure with minimum potential negative environmental impact

SIGMA will be conducting a few model activities that will involve purchase of equipment and /or construction of small scale infrastructure with minimum potential negative environmental impacts. In these cases SIGMA will require an environmental mitigation plan to be developed and followed, in accordance with LAC guidelines where they exist and in compliance with national / local environmental regulations. We will monitor to ensure that mitigation plans are followed.

Pesticide Training

SIGMA in conjunction with pesticide experts in the Central America and USEPA is developing a training model for the region and a workshop series in the rational use of pesticides. The training model will focus on the use of pesticides in the cultivation of watermelons, cantaloupe, and other melons. The objectives of this effort and subsequent training activities are:

- Train melon producers, private experts, municipal experts, and suppliers of pesticides in the proper use and management of pesticides
- Promote greater social awareness and application of existing laws governing the use of pesticides
- Promote best practices in use of pesticides to improve efficiencies and prevention and mitigation efforts
- Increase the knowledge of policies and norms required in the use of pesticides for melons

SIGMA will prepare a detailed training plan for safe pesticide use in the development of the content of the workshop series.

THRESHOLD DECISIONS:

Pursuant to 22 CFR 216.2(c)(1)(iii)&(2)(ii) a Categorical Exclusion would be appropriate for research activities, except that in these cases, we want to assure that the scope of any impacts remains insignificant by mitigating the impacts. Therefore a ***Negative Determination with Conditions*** is issued for research activities, with the condition that a mitigation plan for each activity be cleared by REA before any construction begins.

A ***Negative Determination with conditions*** is recommended for focused technical assistance and the Small Scale Investment project. In these cases SIGMA will require an environmental mitigation plan to be developed and followed, in accordance with LAC guidelines (Chapter 2: Small Scale Infrastructure, Chapter 4: Microfinance and Micro and Small Enterprises, Chapter 5: Solid Waste Management, Chapter 6: Renewable Energy Systems, and Chapter 7: Ecotourism, as appropriate) where they exist and in compliance with national / local environmental regulations. The CTO and the REA will monitor to ensure that mitigation plans are followed.

In LAC IEE-04-011, the BEO recommended a Deferral for activities involving pesticides. Now that we have more information on the planned activity, we are addressing the deferral and a ***Negative Determination with conditions*** is recommended for the training activity on ***Pesticide Management***. The conditions are:

- An USEPA pesticides expert will advise SIGMA in the development of the workshops.
- No training will take place until a pesticides training plan including a adoption monitoring plan is submitted and approved by the REA and the BEO.
- SIGMA will follow LAC Guidelines (Chapter 8: Agriculture and Watershed Management) in the development of the content of the training workshop series, including but not limited to:
 - IPM will be the goal of the training
 - Trainees will be able to prepare acceptable PERSUAPs for their agricultural programs and will be monitored by SIGMA after training to verify adoption rates of this practice.

CTOs are responsible for making sure environmental requirements are met. It is the responsibility of the SO Team to ensure that implementing documents contain specific instructions to this effect.

Date 04/16/04

George R. Thompson, P.E.
Bureau Environmental Officer
Bureau for Latin America & the Caribbean

Copy to

: Deborah Kennedy-Iraheta, Director, a.i.,
USAID/G-CAP

Copy to : Anne Dix, REO, USAID/Guatemala
Copy to : Roberto Morales, PROARCA
Copy to : LilianaGil, PDM, USAID/G-CAP
Copy to : Doreen Salazar, ARD
Copy to : Michael Kerst, LAC/CAM
Copy to : Michael Donald, REA, Central America
Copy to : IEE File

Attachment: IEE



INITIAL ENVIRONMENTAL EXAMINATION (SUPPLEMENTAL)

COUNTRY: Central America

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Roberto Morales, PROARCA
Michael Donald, REA, USAID/G-CAP

RECOMMENDED THRESHOLD DECISION: Categorical Exclusion
Negative Determination with Conditions

DATE PREPARED: March 31, 2004

Recommendation for Threshold Decision

An Initial Environmental Examination for the PROARCA SO₂: Improved Environmental Management in the Mesoamerican Biological Corridor was prepared in January 2001; the Environmental Threshold Decision (LAC-IEE-01-13) was issued in April 2001 and further amended by ETD (LAC-IEE-03-43), issued on July 03 and ETD (LAC-IEE-04-011) issued March, 2004.

Pursuant to Section 216.2(a) of AID environmental procedures, environmental analysis/evaluation is required for new projects, programs or activities authorized by A.I.D. The attached information presents an analysis of the further detailed activities planned under the PROARCA II increased use of less polluting technologies program (IR 4) and the environmental impacts of those actions, and is a supplement to the Initial Environmental Examination. Beneficiaries of funds for mission management should be aware that they are legally responsible for making sure environmental requirements are met.

A categorical exclusion should be issued for activities involving training and technical assistance in accordance with 22 CFR 216.2(c)(1)(i) and 22 CFR 216.2(c)(2)(i).

Pursuant to 22 CFR 216.2(c)(2)(ii) a Categorical Exclusion is recommended for research activities, which are indeed “controlled experimentation exclusively for the purpose of field research and documentation which are confined to small areas and carefully monitored.”

A Negative Determination with conditions is for focused technical assistance and the Small Scale Investment project. Mitigating actions from the LAC environmental guidelines will be used and new mitigations will be developed and incorporated as part of project implementation described above.

A negative determination with conditions is issued for Pesticides Training until a detailed pesticides training plan is submitted and approved by REA. No training will take place until the pesticides training plan is approved.

Concurrence: _____
Deborah Kennedy-Iraheta
USAID/G-CAP, Mission Director, a.i.

Date: _____

OVERVIEW AND PROJECT DESCRIPTION

This IEE covers the activities that will be undertaken to fulfill USAID/G-CAP's objectives based on the Central America – Increased use of less polluting technologies. These activities support USAID/G-CAP's environmental strategic objective “Improved Environmental Management in the Mesoamerican Biological Corridor”, but have a wider regional impact.

Activity Descriptions:

Focused, detailed, technical assistance

Some of SIGMA consultancies and purchase orders involve provision of focused technical assistance to municipalities and/or productive enterprises to improve environmental management. This work does not include any purchase of equipment or infrastructure, but does involve development of detailed analyses and recommendations for actions to be taken to improve environmental management. Some of the results of the recommended actions, which are not under USAID direct control, could have negative environmental impacts. Example activities include:

- Clean production audit of a tannery, to quantify material inputs, outputs, and recommend opportunities for reducing energy use, materials use, water use, and maximizing product recovery and efficiency to reduce wastes generated.
- Development of a solid waste action plan for a municipality, including recommendations to improve waste collection coverage, improve financial management, and improve waste disposal, site selection, and disposal site management.
- Recommendations for improved operation of existing wastewater treatment plants, which may include installation of infrastructure to improve operational efficiency.

For all of these activities, the technical assistance itself does not have negative environmental impacts, and USAID does not have direct control of implementation of recommendations. However, SIGMA will require environmental analysis of recommended actions (for example we will recommend to clients that EIAs be conducted if necessary) consistent with LAC environmental guidelines as part of the scope of work of our consultancies and purchase orders.

Research activity with limited scope and effective monitoring

SIGMA has been approached by students of the Universidad de San Carlos Escuela Regional de Ingenieria Sanitaria (ERIS) to support physical construction of model wastewater infrastructure activities. These are small-scale construction projects designed for experimentation, and confined to small areas, consistent with 22 CFR 216.2 (c)(2)(ii). However, we will require development of a mitigation plan in any case in the scope of work if there are any potential negative impacts.

Example activities are:

- Rehabilitation of wastewater treatment lagoons and construction of model agricultural (cucumber) re-use area.
- Construction of model wetlands treatment area.

The infrastructure would be constructed in already degraded sites; the two requests SIGMA has received so far are confined to the ERIS wastewater research site, which is a degraded site.

Small scale investment in equipment &/or infrastructure with minimum potential negative environmental impact

SIGMA will be conducting a few model activities that will involve purchase of equipment and /or construction of small scale infrastructure with minimum potential negative environmental impacts. Example activities are:

- Rehabilitation of an existing dump including construction of drainage canals to route runoff around the site, earthwork to bury exposed waste to decrease environmental health risks associated with insect and rodent vectors of disease, widening and improving the conditions of access roads, and installation of methane gas vents.
- Rehabilitation of wastewater treatment facilities for a tannery, slaughterhouse, or municipality, which may include purchase of equipment and/or construction of additional infrastructure (holding tanks / piping).
- Construction of model septic tank sludge treatment facilities.

In these cases SIGMA will require an environmental mitigation plan to be developed and followed, in accordance with LAC guidelines where they exist and in compliance with national / local environmental regulations. We will monitor to ensure that mitigation plans are followed.

Pesticide Training

SIGMA in conjunction with pesticide experts in the Central America and USEPA is developing a training model for the region and a workshop series in the rational use of pesticides. The training model will focus on the use of pesticides in the cultivation of watermelons, cantaloupe, and other melons. The objectives of this effort and subsequent training activities are:

- Train melon producers, private experts, municipal experts, and suppliers of pesticides in the proper use and management of pesticides
- Promote greater social awareness and application of existing laws governing the use of pesticides
- Promote best practices in use of pesticides to improve efficiencies and prevention and mitigation efforts
- Increase the knowledge of policies and norms required in the use of pesticides for melons

SIGMA will prepare a detailed training plan for safe pesticide use in the development of the content of the workshop series.

With these mitigations it is considered that the activity should have a net beneficial impact on the environment and result on an improvement in the way pesticides are currently managed.

Recommended Threshold Decisions:

Pursuant to 22 CFR 216.2(c)(2)(ii) a ***Negative Determination with Conditions*** is recommended for research activities, with the condition that a mitigation plan be cleared by REA.

A ***Negative Determination with conditions*** is recommended for focused technical assistance and the Small Scale Investment project. In these cases SIGMA will require an environmental mitigation plan to be developed and followed, in accordance with LAC guidelines (Chapter 2: Small Scale Infrastructure, Chapter 4: Microfinance and Micro and Small Enterprises, Chapter 5: Solid Waste Management, Chapter 6: Renewable Energy Systems, and Chapter 7: Ecotourism, as appropriate) where they exist and in compliance with national / local environmental regulations. The CTO and the REA will monitor to ensure that mitigation plans are followed.

In LAC IEE-04-011, the BEO recommended a Deferral for activities involving pesticides. Now that we have more information on the planned activity, we are addressing the deferral and a ***Negative Determination with conditions*** is recommended for the training activity on ***Pesticide Management***. However, no training will take place until a pesticides training plan is submitted and approved by REA. SIGMA will follow LAC Guidelines (Chapter 8: Agriculture and Watershed Management) in the development of the content of the training workshop series. An USEPA pesticides expert will advise SIGMA in the development of the workshops.

Clearances:

Michael Donald, REA	_____Cleared in draft_____
Anne Dix, PROARCA	_____
Liliana Gil , PDM	_____